

CLAIMS:

1. A glass comprising:

a base glass portion comprising:

SiO ₂	at least 67 %
Na ₂ O	10 to 20%
CaO	5 to 15%
MgO	0 to 8%
Al ₂ O ₃	0 to 5%
K ₂ O	0 to 5%

a colorant portion comprising:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.20%
cobalt oxide:	0.1 to 15 ppm
chromium oxide:	0 to 10 ppm
titanium oxide:	0 to 0.5%
glass redox:	<= 0.10
%FeO:	0.0001 to 0.05%

wherein the glass has a visible transmission of at least about 85%.

2. The glass of claim 1, wherein the glass further comprises from 0.005 to 1.0% cerium oxide, and from 0 to 0.2 % titanium oxide.

3. The glass of claim 1, wherein the glass has a visible transmission of at least 88%.

4. The glass of claim 1, wherein the glass has a visible transmission of at least 90%, and a UV% transmission of no greater than about 75%.

5. The glass of claim 1, wherein the colorant portion comprises:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.15%
cobalt oxide:	0.3 to 10 ppm

glass redox: ≤ 0.08
%FeO: 0.0001 to 0.01%.

6. The glass of claim 1, wherein the colorant portion comprises:

total iron (expressed Fe_2O_3): 0.02 to 0.10%
cobalt oxide: 0.5 to 5 ppm
glass redox: ≤ 0.08
%FeO: 0.0001 to 0.008%.

7. The glass of claim 1, wherein the colorant portion comprises:

total iron (expressed Fe_2O_3): 0.02 to 0.08%
cobalt oxide: 0.3 to 5 ppm
glass redox: ≤ 0.05
%FeO: 0.0001 to 0.01%
titanium oxide: 0 to 0.2%.

8. The glass of claim 1, wherein the glass has a UV% transmission no greater than about 75%.

9. The glass of claim 1, wherein the glass has a UV% transmission no greater than about 72%.

10. The glass of claim 1, wherein the glass comprises from 0.01 to 0.5% cerium oxide.

11. The glass of claim 1, wherein the glass is colored as follows:

a* -1 to +1
b* -1 to +1.

12. A glass comprising:

a base glass portion comprising:

SiO_2 at least 67%

Na ₂ O	10 to 20%
CaO	5 to 15%
MgO	0 to 8%
Al ₂ O ₃	0 to 5%
K ₂ O	0 to 5%

a colorant portion consisting essentially of:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.20%
cobalt oxide:	0.1 to 15 ppm
chromium oxide:	0 to 10 ppm
titanium oxide:	0 to 0.5%

wherein the glass has a visible transmission of at least about 85%, a glass redox of no greater than 0.10, and a %FeO of from 0.0001 to 0.05%.

13. The glass of claim 12, wherein the glass further comprises from 0.005 to 1.0% cerium oxide.

14. The glass of claim 12, wherein the glass has a visible transmission of at least 88%.

15. The glass of claim 12, wherein the glass has a visible transmission of at least 90%, and a UV% transmission of no greater than about 75%.

16. The glass of claim 12, wherein the colorant portion consists essentially of:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.15%
cobalt oxide:	0.3 to 10 ppm
chromium oxide:	0 to 10 ppm
titanium oxide:	0 to 0.2%

wherein the glass has a glass redox of no greater than 0.08 and a %FeO of from 0.0001 to 0.01%.

17. The glass of claim 12, wherein the colorant portion consists essentially of:

total iron (expressed Fe ₂ O ₃):	0.02 to 0.10%
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cobalt oxide:	0.3 to 5 ppm
chromium oxide:	1 to 5 ppm
titanium oxide:	0 to 0.2%

wherein the glass has a glass redox of no greater than 0.08 and a %FeO of from 0.0001 to 0.008%.

18. The glass of claim 12, wherein the glass is colored as follows:

a*	-1 to +1
b*	-1 to +1.

19. A glass comprising:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.15%
cobalt oxide:	0.1 to 15 ppm
chromium oxide:	0 to 10 ppm
titanium oxide:	0 to 0.5%
glass redox:	<= 0.10
%FeO:	0.0001 to 0.05%

wherein the glass has a visible transmission of at least about 85%.

20. The glass of claim 19, wherein the glass is colored as follows:

a*	-1 to +1
b*	-1 to +1.

21. The glass of claim 19, wherein the glass is colored as follows:

a*	-0.5 to +0.5
b*	-0.5 to +0.5.

22. The glass of claim 19, comprising:

total iron (expressed Fe ₂ O ₃):	0.01 to 0.15%
cobalt oxide:	0.3 to 10 ppm
glass redox:	<= 0.08
%FeO:	0.0001 to 0.01%.

23. The glass of claim 19, comprising:
- | | |
|--|------------------|
| total iron (expressed Fe_2O_3): | 0.02 to 0.10% |
| cobalt oxide: | 0.5 to 5 ppm |
| glass redox: | ≤ 0.08 |
| %FeO: | 0.001 to 0.008%. |
24. The glass of claim 19, further comprising from 0.005 to 1.0% cerium oxide.
25. The glass of claim 19, wherein the glass has a visible transmission of at least 88%.
26. The glass of claim 19, wherein the glass has a visible transmission of at least 90%, and a UV% transmission of no greater than about 75%.
27. The glass of claim 19, wherein the glass comprises from 0.01 to 0.5% cerium oxide.
28. A glass comprising:
- | | |
|--|---------------|
| total iron (expressed Fe_2O_3): | 0.01 to 0.20% |
| cobalt oxide: | 0.1 to 15 ppm |
| glass redox: | ≤ 0.12 |
| cerium oxide: | 0.005 to 1.0% |
- wherein the glass has a visible transmission of at least about 85%.
29. The glass of claim 28, wherein the glass is colored as follows:
- | | |
|----|-----------|
| a* | -1 to +1 |
| b* | -1 to +1. |
30. The glass of claim 28, wherein the glass is colored as follows:
- | | |
|----|--------------|
| a* | -0.5 to +0.5 |
|----|--------------|

b* -0.5 to +0.5.

31. The glass of claim 28, comprising:

total iron (expressed Fe_2O_3): 0.01 to 0.15%
cobalt oxide: 0.3 to 10 ppm
glass redox: ≤ 0.08
%FeO: 0.0001 to 0.05%.

32. The glass of claim 28, further comprising from 0 to 10 ppm chromium oxide, and from 0 to 0.2% titanium oxide.

33. The glass of claim 28, wherein the glass has a visible transmission of at least 88%.

34. The glass of claim 28, wherein the glass has a visible transmission of at least 90%, and a UV% transmission of no greater than about 75%.

35. A glass comprising a base portion, and a colorant portion consisting essentially of:

total iron (expressed Fe_2O_3): 0.01 to 0.20%
cobalt oxide: 0.1 to 15 ppm
chromium oxide: 0 to 10 ppm
titanium oxide: 0 to 0.5%

wherein the glass has a visible transmission of at least about 85%, and a glass redox of no greater than 0.12.

36. The glass of claim 35, wherein the glass is colored as follows:

a* -1 to +1
b* -1 to +1.

37. The glass of claim 35, wherein the glass is colored as follows:

a* -0.5 to +0.5

b* -0.5 to +0.5.

38. The glass of claim 35, wherein the colorant portion consists essentially of:

total iron (expressed Fe_2O_3): 0.02 to 0.10%

cobalt oxide: 0.3 to 5 ppm

chromium oxide: 0 to 5 ppm

titanium oxide: 0 to 0.2%

wherein the glass has a glass redox no greater than 0.05.

39. The glass of claim 35, further comprising from 0.005 to 1.0% cerium oxide, and a visible transmission of at least 88%.